

Type 2 Diabetes

A VA Clinician's Guide to Diabetes Management in Primary Care (2020)



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Your Partner in Enhancing Veteran Health Outcomes

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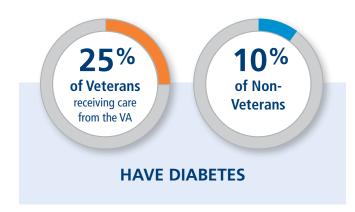
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http://www.pbm.va.gov/PBM/academicdetailingservicehome.asp

Background

Diabetes affects over 30 million Americans. Type 2 diabetes is more common than type 1, accounting for 90-95% of all diabetes cases. Alarmingly, an estimated 1 in 5 people with diabetes do not know they have it.

Diabetes is common among Veterans.²⁻⁴



Diabetes is a chronic disease that worsens over time if not optimally treated.^{2,5}

Veterans have a high incidence of diabetes due to increased likelihood of the following:²⁻⁴

- Obesity
- Advanced age
- Low income
- High-risk ethnic groups: African Americans, Hispanics, Native Americans, Asians, Pacific Islanders
- Exposure to herbicides like Agent Orange
- Limited activity due to chronic pain, degenerative arthritis, or other physical limitations

Suboptimal diabetes control increases the risk for:2,5







Amputations



End-stage renal disease



Heart disease and stroke



Hospitalizations
3rd leading cause of
hospitalizations in VA (SAIL)

SAIL = Strategic Analytics for Improvement and Learning Value Model or SAIL, is a system for summarizing hospital system performance within Veterans Health Administration (VHA).

www.va.gov/qualityofcare/measure-up/Strategic_Analytics_for_Improvement_and_Learning_SAIL.asp

Prediabetes puts Veterans at higher risk for developing diabetes

84 million Americans have prediabetes, which is roughly 1 in 3 people.1



Prevention is the best medicine.



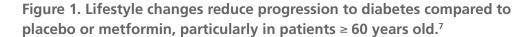
Lifestyle change recommendations:6-8

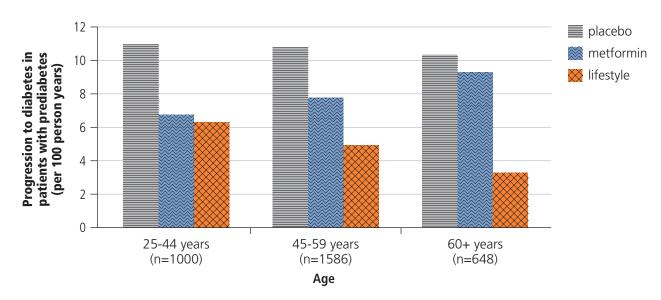
- Get 150 or more minutes of moderate intensity exercise a week.
 - Example: a brisk walk for 30 minutes at least
 5 days a week



- Reduce caloric intake to lose 5-10% of body weight in people who are overweight or obese.
 - Example: a 250-pound Veteran would aim to lose 18 pounds

58% reduction in diabetes risk with lifestyle changes8





In Veterans under age 60 with a Body Mass Index (BMI) \geq 35 kg/m², lifestyle changes including diet and exercise are as effective as metformin in preventing the progression to diabetes.⁸

Encourage Veterans to participate in the MOVE! Weight Management Program.

• MOVE! is a lifestyle intervention program for Veterans that reduces the risk of developing diabetes and other chronic conditions.⁹



- It is based on Diabetes Prevention Program principles, strategies, and materials.
- The Diabetes Prevention Program is available in community settings and at some VA facilities/clinics. It is an alternative to MOVE!

Reduce the risk of diabetes in Veterans by encouraging meal planning, lifestyle changes, and referring Veterans to MOVE!

Identify Veterans at risk for developing diabetes.



Screen annually if Veteran:

- Has prediabetes on previous testing
- Is taking medications that increase insulin resistance or result in hyperglycemia (e.g., glucocorticoids, antipsychotics, or some HIV medications)



Screen every three years in Veterans at-risk for diabetes:7,11

- Everyone age ≥ 45 *OR*
- Under age 45 with BMI ≥ 25 kg/m² (or ≥ 23 kg/m² in Asian Americans)
 and at least one of the following:
 - First-degree relative with diabetes
 - Physically inactive
- Non-white race
- History of gestational diabetes
- Hypertension
- Polycystic ovary syndrome

- Low HDL/high triglycerides
- Cardiovascular disease
- Abdominal obesity
- Other clinical conditions associated with insulin resistance (e.g., acanthosis nigricans)

Diabetes management

Diagnosing diabetes and establishing optimal control early in the course of the disease is important to decrease the risk of cardiovascular disease, microvascular complications, and mortality. 10 All patients diagnosed with diabetes should be instructed about lifestyle changes that can reduce diabetes complications. In those who are not expected to reach lifestyle change targets, pharmacotherapy, usually starting with metformin, should be initiated.

Figure 2. Initial considerations^{6,10}



- Establish HbA1c target range
- Determine urgency to reach target range
- 2 Start lifestyle changes
 - Diet
 - Exercise
 - Tobacco cessation
 - Alcohol reduction/cessation
 - Weight reduction if patient has overweight/obesity
- 3 Pharmacotherapy
 - If lifestyle changes are insufficient to reach target range or are not expected to reach target range
 - First line = metformin
 - Consider starting insulin if HbA1c is > 2% over target range

1 Diagnose diabetes: Take two!

Two readings are required to confirm diagnosis. Measurements may be taken on two occasions, or an HbA1c and a fasting plasma glucose (FPG) from the same visit can be used to confirm diagnosis.

Certain factors can affect red blood cell life, and therefore impact the reliability of HbA1c.



Use FPG instead of HbA1c to more reliably diagnose diabetes in the following patient populations:^{10,11}

- Older Veterans
- Non-white Veterans
- Existing renal disease
- Anemia
- Pregnancy
- Recent transfusion

Table 1. Diagnostic criteria for diabetes and prediabetes:10

Status	Fasting Plasma Glucose (FPG)*⁵ or Hemoglobin A1c (HbA1c)†	
Normal	FPG < 100 mg/dL HbA1c < 5.7%	
Prediabetes	FPG ≥ 100 mg/dL and < 126 mg/dL on 2 occasions or HbA1c ≥ 5.7% and FPG ≥ 100 mg/dL and < 126 mg/dL or 2-hour plasma glucose 140-199 mg/dL (IGT)	
Diabetes	FPG \geq 126 mg/dL on 2 occasions or HbA1c \geq 6.5% and a confirmatory FPG \geq 126 mg/dL or HbA1c \geq 7.0% on 2 occasions	

^{*}Fasting is defined as no caloric intake for at least 8 hours.

IGT = impaired glucose tolerance during oral glucose tolerance test (OGTT); **dL** = deciliter; **mg** = milligram

See the VA/DoD Clinical Practice Guideline for the Management of Type 2 Diabetes Mellitus in Primary Care (2017) for more information.

Establish an individualized target range.

The HbA1c target range is not one-size-fits-all, nor is it static over time. These factors help determine what range is right for each Veteran: 10,12



- Duration of diabetes
- Life expectancy
- Comorbidities (e.g., COPD, chronic kidney disease)
- Presence of vascular disease
- Race in African Americans, HbA1c levels overestimate glucose levels¹²
- Veteran preferences and support
- Cognitive function
- Risks of side effects, such as hypoglycemia

[§] FPG is the preferred test for diagnosis, but either of the two listed tests is acceptable. In the absence of unequivocal hyperglycemia with acute metabolic decompensation, one of these two tests should be done on different days.

[†] Using a clinical laboratory (not a point-of-care) methodology standardization to the National Glycohemoglobin Standardization Program (NGSP).

How precise is the HbA1c test?12

Any specific HbA1c value is better thought of as a range, rather than an exact measure. The test has an approximate margin of error of 1.0% (0.5% on either side of the target value). When a test result is 7.0%, the actual HbA1c could be anywhere between 6.5 and 7.5%.

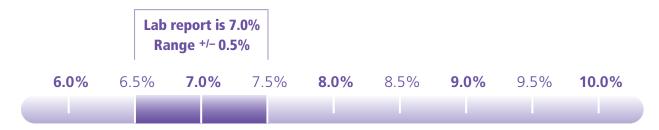
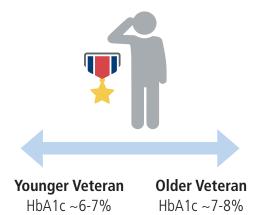


Table 2. Determination of target HbA1c levels¹⁰

Major comorbidities*	Microvascular complications		
or physiologic age	Absent or mild	Moderate	Advanced
Absent > 10-15 years of life expectancy	6-7%	7-8%	7.5-8.5%
Present 5-10 years of life expectancy	7-8%	7.5-8.5%	7.5-8.5%
Marked < 5 years of life expectancy	8-9%	8-9%	8-9%

^{*} Examples of major comorbidities include CVD, severe CKD, severe COPD, severe chronic liver disease, recent stroke, and life-threatening malignancy. See the *VA/DoD Clinical Practice Guideline for the Management of Type 2 Diabetes Mellitus in Primary Care (2017)* for more specific information on complications and comorbidities that can influence HbA1c target range.



Consider age and health.

An older Veteran with long-standing diabetes disease and comorbidities may have an HbA1c target range of 7-8%, while a younger, newly-diagnosed Veteran without cardiovascular disease or microvascular complications may have an HbA1c target range of 6-7%. Veterans with impaired cognitive function may need a higher target range. Individual targets may vary based on clinical judgment and Veteran preferences.

Figure 3. Patient case example:

- 60 year old, severe COPD, newly diagnosed with diabetes. No microvascular complications
- HbA1c at diagnosis 9.3%
- Started on lifestyle modifications and metformin

HbA1c target range 7.0-8.0%

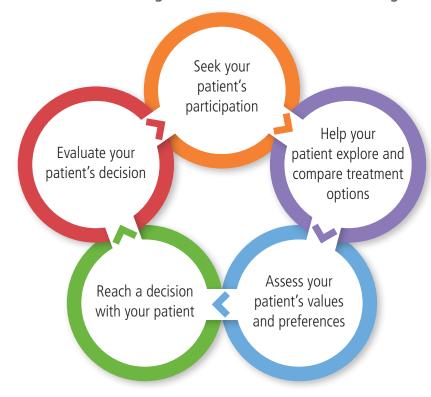
New HbA1c test was 8.1%

- Currently taking metformin 1000 mg twice daily
- Stopped smoking
- No longer drinking sodas
- Started walking 10 minutes a day
- Consider the accuracy of the HbA1c test
- Veteran is making positive lifestyle changes and HbA1c improved significantly and is close to target range

Not changing therapy is an acceptable approach

Establish and document HbA1c target range based on individual patient factors and shared decision making.

Figure 4. Use shared-decision making to involve Veteran in establishing a treatment plan¹³



2 Lifestyle changes

Mobilize the team to engage the Veteran in care.

- Refer to diabetes educators, dietitians, clinical pharmacy specialists, and other members of the team to help support modifications to diet and exercise.
- Connect Veterans with self-management support and education programs.
- Refer to the **MOVE!** Weight Management Program for Veterans if they have overweight/obesity.



MEAL PLANNING

- Discuss food and housing insecurity, and financial constraints.
- Carbohydrates are the main nutrient that affects blood glucose.
- Refer to a dietitian, particularly one experienced in Medical Nutrition Therapy, to individualize meal planning.



EXERCISE

- Encourage Veterans to increase physical activity.
 - A combination of aerobic and resistance training is best at lowering HbA1c.¹⁴
 - Get up and move at least every 30 minutes to prevent prolonged sitting at work or home.
- Any activity is better than none.





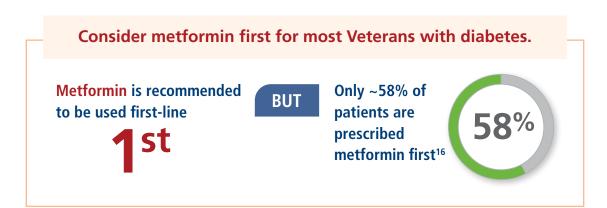
3 Pharmacotherapy

Metformin is recommended as first-line therapy.

- Has been in use for decades and is low cost.
- Safe to initiate in patients with moderate renal dysfunction (eGFR > 45 mL/min) and may continue metformin therapy in patients with eGFR 30-45 mL/min.¹⁵ Monitoring is no longer based on serum creatinine levels.



- Consider referring to a clinical pharmacy specialist for drug therapy initiation and titration.
- Slow titration, taking metformin with food, or using an extended-release formulation can reduce or prevent GI upset and diarrhea.



After metformin, use a patient-centered approach to review patient factors and preferences to determine the next medication to use.¹⁶⁻²³

Considerations include the following:

- Cardiovascular and renal comorbidities
- Hypoglycemia risk
- Impact on weight

- Risk for side effects
- Patient preferences
- Cost

Atherosclerotic cardiovascular disease (ASCVD) is the leading cause of morbidity and mortality in patients with diabetes.



If a patient has established ASCVD, heart failure (HF), and/or chronic kidney disease (CKD), select diabetes-lowering medications used as adjuncts to metformin that have proven benefits for these conditions. In addition, if the patient has a higher risk of hypoglycemia or weight gain, select medications taking these factors into account. See *A VA Clinician's Quick Reference Guide to Diabetes Management in Primary Care (2020)* for more information.

Start lifestyle interventions + metformin Does Veteran have ASCVD, HF, or CKD?* **ASCVD** CKD or HF None Add second-line agent If HbA1c is > 9%. consider starting basal insulin SGLT-2[†] DPP4 SGLT-2[†] at any step. empagliflozin empagliflozin or SGLT-2[†] canagliflozin canagliflozin or Sulfonylurea dapagliflozin or TZD If not effective or tolerated, add or substitute GLP-1[†] GLP-1[†] • inj. semaglutide • inj. semaglutide GLP-1[†] liraglutide liraglutide dulaglutide dulaglutide

Figure 5. Selection of glucose-lowering medications in those with Hba1c above target⁶

ASCVD: indicators are age \geq 55 years with coronary, carotid, or lower extremity artery stenosis > 50% or left ventricular hypertrophy (LVH).

CKD: eGFR 30-60 mL/min/1.73 m^2 or UACR > 30 mg/g, particularly UACR > 300 mg/g.

HF: left ventricular ejection fraction < 45%.

- * **Agents shown to reduce ASCVD risk:** SGLT-2 = Sodium-glucose co-transporter 2 inhibitor (empagliflozin, canagliflozin); GLP-1 = Glucagon-like peptide-1 agonist (injectable semaglutide, liraglutide, dulaglutide). GLP-1s have not been shown to lower heart failure risk (neutral outcome). Dapagliflozin has been shown to lower heart failure risk and CKD risk, but neutral for ASCVD.
- † Indicates referral to individual Criteria for Use. Do not combine a DPP-4 inhibitor with a GLP-1 agonist.

Not shown in the figure are uncommonly-used agents (e.g., alpha-glucosidase inhibitors, meglitinides, pramlintide, inhaled insulin, etc.), but these may be considered in specific situations. Refer to Criteria for Use for pramlintide and inhaled insulin: **www.pbm.va.gov**

After metformin, in patients with ASCVD, HF, and/or CKD needing further glucose lowering, consider a SGLT-2. A GLP-1 can be used as an alternative for patients with ASCVD and/or CKD unable to use a SGLT-2.

For all patients starting on medication, continue to do the following:

- Emphasize meal planning and lifestyle modifications, assess medication adherence, and optimize dose at every step.
- Check HbA1c every 3 months and adjust regimen if not in target range.
- Use patient factors and preferences to select medication(s).
- Continue to re-assess patient goals and plan to achieve HbA1c target range.
- Work with a clinical pharmacy specialist to determine an optimal treatment plan.
- Refer to the Pharmacy Benefits Management (PBM) guidance document about test strip dispensing for those on non-insulin agents: *Dispensing guidance for Home Glucose Monitoring Test Strips in Patients with Type 2 Diabetes Who Are Not Receiving Insulin:* www.pbm.va.gov.

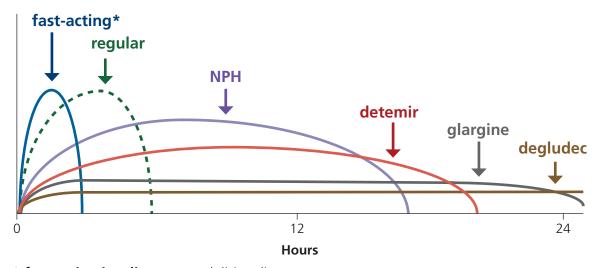
Insulin in action²⁴⁻²⁶

Basal insulins include NPH, detemir, glargine, and degludec.

- Recent studies suggest little clinically relevant differences between basal insulins. 25,26
- Glargine u100 and degludec have demonstrated cardiovascular safety.

Prandial insulins include aspart, glulisine, lispro, and regular.

Figure 6. Many types of insulin are available, all with different onsets and durations of action



^{*} fast-acting insulin: aspart, glulisine, lispro

Initiating insulin

When deciding to start insulin in a Veteran, it is important to consider the following factors:

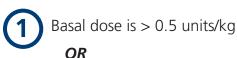
- What do they prefer? Use motivational interviewing to identify their preferences. Ask the Veteran: *How do you feel about taking insulin?*
- Cognitive function
- Visual acuity
- Ability to detect hypoglycemia
- Willingness to do injections

Avoid using statements that imply a punitive stance about insulin or that the patient has "failed" with other efforts. Diabetes is a progressive disease and many patients eventually require insulin for optimal diabetes management.

Figure 7. Using basal insulin*6,10 **Basal** insulin Titrate basal insulin **Decrease insulin Set FPG** If hypoglycemia target range Initial dose 10 units • 10 to 15% weekly Decrease insulin or 0.1 to 0.2 units/kg dose by 10 to 20% or 2 units every 3 days based on once daily self-monitored FPG

Adding prandial (meal-time insulin)6

Prandial insulin can be added if the HbA1c continues to be over the target range and:



Fasting glucose readings are in the target range, indicating that readings are likely elevated after meals.

^{*}Individualize insulin regimen based on Veteran-specific factors and glucose measurements.

Figure 8. Using prandial insulin



Starting prandial insulin

- Start with one dose before the largest meal of the day.
- Begin with 4 units a day or 10% of basal dose.
- If HbA1c is < 8% then consider lowering basal dose by 4 units a day or 10%.

Home BG or HbA1c over target

range

Titrating prandial insulin

- Increase dose by 1 to 2 units or 10 to 15% twice weekly.
- If having hypoglycemia, determine the cause (e.g., missed meal, exercise).
 - If no clear reason, then lower corresponding dose by 10 to 20%.

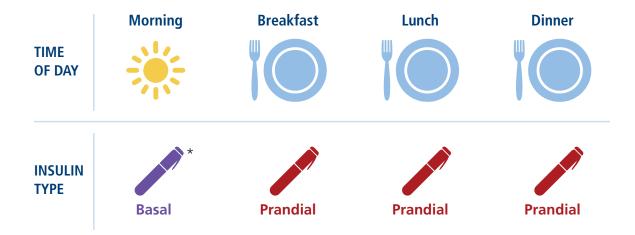
HbA1c over target range

Adding prandial doses

- Start with adding a second prandial dose and follow titration schedule.
- Recheck HbA1c in 3 months.
- If HbA1c still elevated, add a third prandial insulin dose.

Consider using a pre-mixed insulin such as insulin 70/30 if the Veteran is having difficulty with multiple daily injections.

Figure 9. Sample day with basal and prandial insulin



^{*}May need basal insulin two times daily depending on dose and type.

Figure 10. Types, frequency, and dosages of insulin should be individualized based on the following factors:

Age and weight

- Make slower adjustments in older patients.
- Patients with obesity may need higher insulin doses due to insulin resistance.

Comorbid conditions and concomitant medications

Some conditions and medications can increase risk of hypoglycemia or decrease ability to recognize symptoms (e.g., chronic kidney disease, use of beta blockers, or dialysis). Dosing adjustments should be made slowly.

Presence of autonomic neuropathy

Patients with autonomic neuropathy may not recognize hypoglycemic symptoms.

Ability to monitor glucose levels and accurately inject insulin

Making the insulin regimen less complicated (e.g., basal only regimens) and using pen devices may be more beneficial in these patients.

Complexity of management strategy

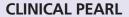
Some management strategies are more complex than others (e.g., number of injections, dosing based on carbohydrate intake). Consider mixed insulins to simplify regimen in appropriate patients.

Risks of hypoglycemia versus benefits of tight control

It is important to weigh the risks and benefits when evaluating the management strategy.

Magnitude and pattern of hypoglycemia

Dose changes should be made slowly and in small increments when patients have frequent hypoglycemia and/or if the magnitude of hypoglycemia is significant.



When basal insulin is added to existing therapy:

- Continue metformin, SGLT-2, GLP-1, DPP-4, and/or sulfonylurea.
- TZD can be continued if patient does not have heart failure.
- Keep in mind hypoglycemia risk.
 Reduce the dose of basal insulin if hypoglycemia occurs.





When prandial insulin is added to basal insulin and existing therapy:

- Continue metformin, DPP-4, SGLT-2, or GLP-1.
- Discontinue sulfonylurea due to risk of hypoglycemia.
- If hypoglycemia occurs, adjust the dose of prandial or basal insulin (based on readings and symptoms) before adjusting metformin, DPP-4, SGLT-2, or GLP-1.









Ensure patient adherence before changing therapy.

- Provide instructions and demonstrate proper technique for insulin and other products administered by injection.
- Review each medication, taken orally and/or by injection, to ensure patient is taking them correctly before considering dose adjustments and/or changing therapy.
- See VA Instructional Videos in the Veteran Health Library. How to Give Yourself a Subcutaneous Injection: www.youtube.com/ watch?v=wXjQHAxopzk

Hypoglycemia negatively impacts health

Hypoglycemia: If patient is symptomatic or when blood glucose falls low enough that action is needed, usually < 70 mg/dL.²⁷

Hypoglycemia increases the risk of:28

- Cardiovascular events
- Cardiovascular mortality
- All-cause mortality
- Falls
- Car crashes

Discuss the symptoms of hypoglycemia with patients and understand that some may not recognize symptoms.



Table 3. Symptoms of hypoglycemia

Mild

- Shakiness
- Blurred vision
- Sweating
- Difficulty thinking
- Increased heart rate
- Feeling anxious
- Hunger
- HeadacheFeeling tired

Moderate

- Difficulty moving
- Confusion
- Unusual behavior.

Severe

- Seizure
- Coma
- Combative behavior

Some risk factors for hypoglycemia can be changed, while others require increased monitoring if present.

Table 4. Modifiable and non-modifiable risk factors for hypoglycemia^{7,11}

Modifiable	Non-modifiable
Irregular eating habits	Longer duration of diabetes
Insulin	Frailty or older age
Sulfonylureas, meglitinides	Cognitive impairment
Polypharmacy (e.g., non-selective beta-blockers)	Chronic kidney disease or hepatic dysfunction
Alcohol use	Hypoglycemia unawareness

For patients with severe or recurrent hypoglycemia on one of the following medications, re-evaluate the target HbA1c goal, and make appropriate dose adjustments or discontinue the medication:⁶

Insulin

Sulfonylureas

Meglitinides

For more information see the VA Hypoglycemia Safety Initiative:

www. quality and safety. va. gov/Choosing Wisely Health Safety Initiative/Hypoglycemia Site/Hypoglycemia. as provided in the property of the provided Hypoglycemia Site of the provided Hypoglycemia Site of the provided Hypoglycemia Site of the provided Hypoglycemia. The provided Hypoglycemia Site of the Provid

Adjust HbA1c target range as Veterans age

Changing the HbA1c target range may help to avoid complications like hypoglycemia.

In some Veterans, hypoglycemia may recur despite achieving a more relaxed glycemic target. For those on insulin, simplifying the regimen can reduce time in hypoglycemia and reduce the number of daily injections, without impairing HbA1c control.²⁹

Figure 11. Changes to overall health and function should trigger a re-assessment of treatment targets.

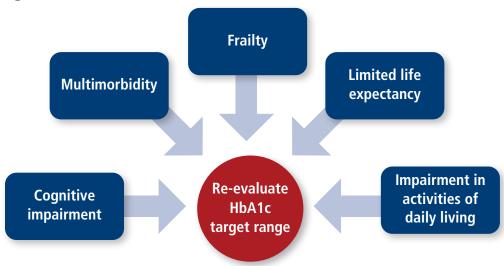


Figure 12. Key actions when simplifying insulin*29

Use basal insulin once Reduce the total number Add and optimize non-insulin daily in the morning of injections glucose-lowering therapies • Glargine or detemir • Discontinue prandial insulins • Start with metformin. can be dosed once if patient is having difficulty Consider patient factors like daily. remembering or hypoglycemia. ASCVD, HF, or CVD for next line agents. • If prandial insulin required, consider using mixed insulin (basal/prandial mix like NPH/aspart, 70/30).

Identify and minimize risks for hypoglycemia and modify treatment plans (e.g., simplifying insulin regimens in older adults).

Figure 13. Optimal medical management for patients with diabetes



Primary prevention (no CVD)

• Balance risk and benefits. In older adults (e.g., ≥ 70 years), risk appears to outweigh benefit.

Secondary prevention (has CVD)

- Use antiplatelet therapy (e.g., aspirin) in most patients unless contraindicated.
- Use clopidogrel 75mg in patients with an aspirin allergy.



Blood pressure*

- **Measure BP at every clinical visit** using appropriate method, patient preparation, and technique.
- Suggest BP goal < 130/90 mm Hg. For patients 60 years and over with T2DM, recommend Systolic BP goal < 140 mm Hg with an added benefit to lowering Systolic BP further for those between 130 and 140 mm Hg.
- Treat with a thiazide diuretic, angiotensin-converting enzyme inhibitor (ACEI), angiotensin receptor blocker (ARB), or calcium channel blocker (CCB).
- Consider use of an ACEI or ARB if proteinuria present.**



- For all patients with diabetes who are > 40 years of age, prescribe a statin.
- Patients > 40 years without other CVD risk factors:
- Prescribe a moderate intensity statin (e.g., atorvastatin 20mg daily).
- Patients with CVD or CVD risk factors (e.g., 10-year ASCVD risk > 20%):
 - Prescribe a high-intensity statin (e.g., atorvastatin 40-80mg).



- VA PAVE (Prevention of Amputation for Veterans Everywhere) is a program designed to prevent limb loss. It expands the care and treatment of clients at risk for amputation or who have had a prior amputation.
- Veterans are encouraged to not go barefoot, use mirrors to view the bottom of their feet to look for ulcers, avoid hot water, and notify their healthcare team if they have wounds that do not heal rapidly.



Gastroparesis

- Recommend a low-fiber, low fat dietary plan with small, frequent meals with a greater proportion of calories as liquids.
- Withdraw medications that can worsen symptoms: Opioids (slowly taper), anticholinergics, GLP-1s, pramlintide, and DPP-4s when clinically feasible
- Metaclopramide may be used for up to 12 weeks in patients unresponsive to other therapies.
- Consider referral to registered dietitian.



- **Determine eGFR** at diagnosis and annually thereafter.
- **Obtain a urine albumin-to-creatinine ratio** at diagnosis and annually thereafter.
- Prescribe an ACEI or ARB in Veterans with diabetes, hypertension, and elevated urinary albumin >30 mg/g Cr (e.g., spot urinary to albumin creatinine ratio (UACR)) and/or an eGFR <60 mL/min/1.73 m².



- Comprehensive foot exam, including:
 - Visual inspection (e.g., skin integrity, toe nails, callouses, deformities, ulcers)
- Determination of temperature, vibration, or pinprick sensation, and 10-g monofilament exam
- Optimize glycemic control for symptoms of autonomic neuropathy and overall health.
- Prescribe duloxetine, gabapentin, or pregabalin for neuropathic pain in accordance with VA PBM clinical guidance.



Obesity

- **Refer Veterans to the MOVE! Weight Management Program** and/or refer to registered dietitian for individual counseling.
- Provide pharmacologic therapy for weight loss when indicated.
- Avoid medications which can contribute to weight gain where clinically feasible.
- Refer for surgical weight loss interventions, especially if:
 - BMI 35-39 kg/m² with obesity associated conditions
 - $-BMI ≥ 40mg/m^2$



Retinopathy

- All Veterans should have a dilated retinal exam or retinal imaging to detect retinopathy.
- Screen at least every other year for Veterans with no retinopathy on prior exams.
- More frequent screenings required if risk factors for progression of retinopathy are present (e.g., pregnancy).
- Follow-up for retinopathy should occur in conjunction with an eye care professional.



Tobacco

- **Drug therapy** using nicotine replacement, bupropion, or varenicline significantly improves cessation rates.
- Adding counseling programs to pharmacotherapy further increases the chances for success.
- Contact your tobacco cessation clinician to learn about programs available at your facility.
- Veterans can also be referred to the Veteran tobacco quitline at **1-855-QUIT-VET**.



Vaccines

- Recommend influenza vaccine annually.
- Other recommended vaccines include:
 - Pneumonia vaccines
 - Hepatitis B
- Vaccines as per immunization schedule (e.g., Tdap, MMR, HPV, Zoster)

Assess diabetes-related complications at each visit, as applicable, and incorporate into the Veteran's diabetes care plan.

^{*}Based on evidence review for the VA/DoD Clinical Practice Guideline for the Diagnosis and Management of Hypertension in the Primary Care Setting (2020). **Refer to VA/DoD Clinical Practice Guideline for the Management of Chronic Kidney Disease (2019).

Summary

- Reduce the risk of diabetes in Veterans by encouraging meal planning, lifestyle changes, AND referring Veterans to MOVE!
- Establish and document HbA1c target range based on individual patient factors and shared decision making.
- Consider metformin as first-line pharmacotherapy for most Veterans with diabetes.
- After metformin, in patients with ASCVD, HF, and/or CKD needing further glucose lowering, consider a SGLT-2. A GLP-1 can be used as an alternative for patients with ASCVD and/or CKD unable to use a SGLT-2.
- Identify and minimize risks for hypoglycemia and modify treatment plans, such as simplifying insulin regimens in older adults or those experiencing hypoglycemia.
- Assess diabetes-related complications at each visit, as applicable, and incorporate into the Veteran's diabetes care plan.



IMPORTANT RESOURCE:

Choosing Wisely Health Safety Initiative:

www.qualityandsafety.va.gov/ChoosingWiselyHealthSafetyInitiative/ HypoglycemiaSite/Hypoglycemia.asp

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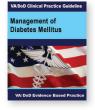
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Resources

VA/DoD Clinical Practice Guidelines

VA/DoD Clinical Practice
 Guideline for the Management
 of Type 2 Diabetes Mellitus
 in Primary Care (2017):



- www.healthquality.va.gov/ guidelines/cd/diabetes
- VA/DoD Clinical Practice Guideline for the Diagnosis and Management of Hypertension in the Primary Care Setting (2020): www.healthquality.va.gov/quidelines/cd/htn
- VA/DoD Clinical Practice Guideline for the Management of Chronic Kidney Disease (2019): www.healthquality.va.gov/guidelines/cd/ckd

VA programs

- VA Hypoglycemia Safety Initiative: www.qualityandsafety.va.gov/ChoosingWiselyHealth SafetyInitiative/HypoglycemiaSite/Hypoglycemia.asp
- VA PAVE (Prevention of Amputation for Veterans Everywhere): www.va.gov/
 VHAPUBLICATIONS/ViewPublication.asp?pub_ID=5364

Tools/videos

- How to Give Yourself a Subcutaneous Injection: www.youtube.com/watch?v=wXjQHAxopzk
- American College of Cardiology ASCVD Plus Tool: tools.acc.org/ASCVD-Risk-Estimator-Plus



This reference guide was created to be used as a tool for VA providers and is available to use from the Academic Detailing SharePoint.

These are general recommendations only; specific clinical decisions should be made by the treating provider based on an individual patient's clinical condition.

VA PBM Academic Detailing Service Email Group:

PharmacyAcademicDetailingProgram@va.gov

VA PBM Academic Detailing Service SharePoint Site:

https://dvagov.sharepoint.com/sites/vhaacademicdetailing/SitePages/Home.aspx

VA PBM Academic Detailing Service Public Website:

http://www.pbm.va.gov/PBM/academicdetailingservicehome.asp

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